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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/078,299

02/20/2002

Ying Liu

3371

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7590

11/06/2008

EXAMINER

ROSARIO, DENNIS

ART UNIT

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2624

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/078,299

**Applicant(s)**

LIU, YING

**Examiner**

Dennis Rosario

**Art Unit**

2624

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 8/28/08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 35-49 is/are pending in the application.
- 4a) Of the above claim(s) 41-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 35-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- \_\_\_\_\_ Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- \_\_\_\_\_ Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment was received on 8/28/08. Claims 35-40 are pending.

### ***Election/Restrictions***

2. Newly submitted claims 41-49 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 41 has matching that was not originally presented and claim 46 has ranking that was not originally presented.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 41-49 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 29 and 31 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 35-40 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another

statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 35-37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (Iterative Refinement by Relevance Feedback in Content-Based Digital Image Retrieval) in view of Corradini et al. (Camera-based Gesture Recognition for Robot Control).

Regarding claim 35, Corradini teaches a process for recognizing an image, said process comprising:

- a) identifying a key image (via a "Query Sessions" on page 15);
- b) imposing an input vector ("feature vector" on page 15, left column, section 2.2) based on the key image to a learning module ("Learning Vector Quantisation" in said 2.2) of a computer-based neural network (fig. 1 on page 16);

c) assigning connection values based on the input vector (corresponding to "nodes are connected" on page 15, right column, section 2.3); and

d) classifying (via said fig. 1) at least one target image based on a Markov chain distribution function.

Wood et al. does not teach the claimed function.

Corradini teaches the claimed function as shown in fig. 3:HMM on page 136.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Corradini's fig. 1:RBF classifier of images with Corradini's hybrid HMM/RBF classifier of static and video images, because Corradini's classifier can "improve the recognition rate" on page 138 of video images.

Regarding claim 36, Wood teaches the process of Claim 35, wherein the step of classifying at least one target image comprises:

a) outputting a determination of a match (corresponding to "best match" on page 15, left column, section 2.2) between the key image and the target image.

Regarding claim 37, Wood teaches the process of Claim 35, wherein the step of classifying at least one target image comprises:

a) ranking a plurality of target images (corresponding to "an ordered list of the best matches" on page 15, left column, section 2.2) based on their likelihood (corresponding to "potentially" on page 15. left column, section 2.2) of matching the key image.

Regarding claim 39, Wood teaches the process of Claim 35, further comprising searching an image source for target images (corresponding to "searching for images in a large database" on page 13, top right column).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (Iterative Refinement by Relevance Feedback in Content-Based Digital Image Retrieval) in view of Corradini et al. (Camera-based Gesture Recognition for Robot Control) further in view of Lee (US Patent 6,795,818).

Regarding claim 38, Wood teaches searching for images, but does not teach the claimed triplet. Lee teaches searching for images and the claimed outputting one image/classification/weight triplet as shown in fig. 2 as "round 1" that represents weight (fig. 2:"initial weights"), image (fig. 2:A or B or C) and classification (fig. 2: where said A or B or C is a class of image).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Wood's teaching of searching images with Lee's searching of images, because Lee's teaching refines a search.

10. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (Iterative Refinement by Relevance Feedback in Content-Based Digital Image

Retrieval) in view of Corradini et al. (Camera-based Gesture Recognition for Robot Control) further in view of Rose (US Patent 7,028,050).

Regarding claim 40 Wood teaches searching for images, but does not teach the claimed . Rose teaches searching for images that includes the claimed outputting a link (or displaying a link as shown in fig. 1:110 with an output device: fig. 3:3) to a target image (fig. 1:108) within the source (fig. 3:8).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Wood's teaching of searching with Rose's teaching, because Rose's searching provides "a more friendly database interface" in col. 2, lines 56-58.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dennis Rosario/  
Examiner, Art Unit 2624

/Matthew C Bella/  
Supervisory Patent Examiner, Art  
Unit 2624



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